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M/035/002 *10-27-63 US*

Kennecott

October 23, 2003

Mr. Lowell P. Braxton, Division Director
State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, UT 84114-5801

Subject: Comments on Southwest Jordan Valley Groundwater Cleanup Project Proposal

Dear Mr. Braxton:

Kennecott Utah Copper Corporation (Kennecott) received a copy of your October 2, 2003, letter to Dr. Dianne Nielsen, Natural Resource Damage (NRD) Trustee, which provided comments of the Division of Oil, Gas and Mining (DOGM) on the Joint Proposal of Kennecott and JWCD to the State Trustee for Natural Resource Damages to the Southwestern Jordan Valley Aquifer (Joint Proposal).

This letter seeks to address the second comment made by DOGM, because of its suggestion that Kennecott may lack the administrative approvals for proceeding with actions contemplated by the Joint Proposal. DOGM states that "The mining and reclamation permits and reclamation bonds associated with the Copperton Concentrator tailings pipeline (M/035/011) and North Tailings Impoundment (M/035/015) have not been amended to allow for the use of the permitted facilities for transport and storage of waste generated in the Zone A RO Treatment Plant and extracted acid core water." For the reasons described below, Kennecott believes that further DOGM permitting is not required in connection with the Joint Proposal.

The Joint Proposal proposes to develop and construct a groundwater extraction and treatment project (Project) with groundwater remedial functions that will provide treated, municipal quality water to the public in the affected area of the southwestern Jordan Valley as defined in the Consent Decree dated August 21, 1995, entered in Civil Action

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No. 86-C-0902G in the United States District Court for the District of Utah. The Consent Decree was entered in settlement of a natural resource damage (NRD) claim made under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Kennecott and Jordan Valley Water Conservancy District (JVWCD) seek to utilize, for implementation of the Project, the trust fund set up under the Consent Decree, in a manner consistent with the obligations required by the Consent Decree and CERCLA.

The Kennecott South Zone Site (southwest Jordan Valley groundwater contamination) was proposed for National Priorities Listing in 1994 (CERCLIS ID UTD000826404). The lead agency for this CERCLA action is the U.S. Environmental Protection Agency (EPA), supported by the State of Utah Department of Environmental Quality (UDEQ). The Remedial Project Manager (RPM) for the site is Dr. Eva Hoffman, EPA Region VIII, with Mr. Douglas Bacon (UDEQ) acting as the State Project Manager.

In the role as the lead CERCLA agency, the EPA was responsible for identifying and involving state and/or other agencies so that agency personnel could provide assistance with regulatory interpretation for compliance with permit or substantive requirements. To fulfill this responsibility, EPA oversaw the creation of a Technical Review Committee (TRC).

The TRC was formed in the early 1990's during the initial stages of the Remedial Investigation (RI) and has continued through the Feasibility Study (FS), Remedial Design (RD) and into the Remedial Action (RA) for the south facilities groundwater plume, southwest Jordan Valley. The TRC is comprised of representatives from Kennecott, various federal, state and local governmental agencies, as well as, representatives from local municipalities and local residents. Notably, DOGM has participated as a member of the TRC for many years reviewing work plans, evaluating progress reports, and discussing issues regarding treatment alternatives. Comments and input from Mr. Tom Munson, Mr. Wayne Hedberg, Mr. Doug Jenson and other members of the DOGM staff have been incorporated in the Final RD that addresses all CERCLA requirements outlined in the December 13, 2000, Record of Decision (ROD).

The ROD specifically requires Kennecott to: 1) withdraw the heavily contaminated waters from the core of the acid plume and treat these contaminated waters using pretreatment with nanofiltration or equivalent technology; 2) Contain the acid plume in Zone A by installation of barrier wells at the leading edge of the contamination (1500 ppm sulfate or less), and pump and treat the water from the contaminated zone to provide a hydraulic barrier to further plume movement while providing treated water for municipal use. (The treatment technology for the barrier well waters is reverse osmosis); and 3) dispose of the treatment concentrates in the existing Kennecott pipeline used to slurry tailings to the tailings impoundment prior to mine closure. The Joint Proposal is designed to work in conjunction with the CERCLA remedy as outlined in the ROD.

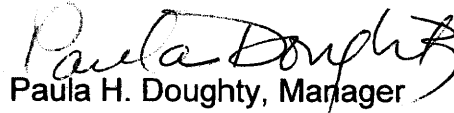
The RD was formally approved by EPA on July 22, 2003. Prior to EPA's approval, the RD had been reviewed and commented on by your staff. Among other things, the RD evaluates the management of Acidic Waters and RO Concentrates in the Kennecott Tailings Circuit (Section 3.4) and outlines the associated performance monitoring requirements (Section 3.4.2.4). Additionally, the RD addresses the impacts of concentrate disposal on the currently approved reclamation plan for the Kennecott tailings impoundment (Section 4.2.3 Division of Oil, Gas and Mining – Notice of Intent). Also, Appendix C - *Geochemical Evaluation: Treating Acidic Waters in the Copperton Tailing Line* prepared by Geochimica, Inc. summarizes the geochemical work plan developed during the RD process and confirms the technical basis for treatment of acidic waters in the tailings system. As stated in the RD, the total mass of the remediation products (gypsum sludge and metals) is less than two percent of the mass of tails deposited in the impoundment on a daily or annual basis. The performance criteria established in the RD for integration of the RO concentrate and neutralization of acidic solution within the tailings disposal facility is to maintain a minimum fluid pH of 6.7 or greater at the North Splitter Box. This will be achieved by the addition of lime to neutralize the acidic solutions when the net neutralization potential (NNP) of the tailings are less than +5t CaCO₃/kt of tailings.

Based on the control and monitoring measures required under the RD, which were developed and approved with the review and input of DOGM staff, no degradation in tailings geochemistry that could affect the reclamation plan for the tailings is anticipated due to the addition of RO concentrate or acidic solutions. Similarly, use of the Kennecott tailings pipeline to transport the RO Concentrate and solutions to the tailings facility, as approved by the DOGM-reviewed RD, will not change the amount of disturbed area or otherwise affect the reclamation plan for the pipeline as outlined in DOGM permit M/035/011. Thus, reclamation plan changes that could potentially require modification of Kennecott's DOGM permits are not anticipated. We also note that under Section 121(e)(1) of CERCLA (42 U.S.C. Section 9621(e)), CERCLA based remedial actions are exempt from local, state, or federal permit requirements so long as similarly protective conditions are included in the remedy, which likely would apply even if modification of the DOGM permits was otherwise indicated.

Finally we note that by letter dated June 11, 2003, Mr. Wayne Hedberg, Permit Supervisor for DOGM, noted that the agency had completed the assessment of Kennecott's updated Bingham Canyon Mine Reclamation & Water Management Plan that was submitted in its final revised form on April 30, 2003. DOGM conditionally approved the plan for Final Reclamation of the Bingham Canyon Mine in the June 11, 2003 letter. Management of the acid plume and RO concentrate waste in the tailings circuit are identified in that Plan in Section 1.3.5 - "CERCLA Sites and NRDC for Acid Plume" and in Section 10.2.3 - "Bingham Creek Groundwater Remediation."

KUCC has enjoyed the working relationship that has been established with DOGM staff over the last few years and would like to continue to work together in a positive manner. Should you have any questions about the Joint Proposal or Kennecott's remedial efforts, or if you would like to further discuss your concerns noted in the October 2, 2003 letter, please don't hesitate to contact me at 569-7120.

Sincerely,



Paula H. Doughty, Manager
Environmental Affairs and Strategic Resources

cc: Ms. Mary Ann Wright, DOGM ✓
Dr. Dianne Nielson, State Trustee
Dr. Eva Hoffman, RPM
Mr. Douglas Bacon, DERR